

In the Claims

Please cancel current claims 1-19 and enter the following new claims 20-38.

--20. A method for inhibiting tumor cells, while reducing the risk of UV radiation exposure or vitamin D toxicity, said method comprising the step of administering to a patient a composition comprising an effective amount of 25-hydroxyvitamin D, or an analog, salt, or derivative thereof, to increase levels of a metabolite of said 25-dihydroxyvitamin D or its said analog, salt or derivative in said tumor cells in a target organ wherein the tumor cells have a hydroxylase enzyme for synthesizing 1,25-dihydroxyvitamin D from said 25-hydroxyvitamin D wherein said tumor cells are selected from the group consisting of prostate cancer cells, breast cancer cells, skin cancer cells, colon cancer cells, lung cancer cells, leukemia cells, and lymphoma cells.

21. The method of claim 20 wherein said composition comprises 25-hydroxyvitamin D.

22. The method of claim 20 wherein said hydroxylase enzyme is 25-hydroxyvitamin D-1-alpha-hydroxylase.

23. The method of claim 20 wherein said tumor cells are selected from the group consisting of prostate cancer cells, breast cancer cells, colon cancer cells, lung cancer cells, and lymphoma cells.

24. The method of claim 20 wherein said tumor cells are prostatic cancer cells.

25 The method of claim 20 wherein the effective amount of said 25-hydroxyvitamin D, or an analog, salt, or derivative thereof is an amount which results in intra-target organ cell levels of said 25-hydroxyvitamin D, or an analog, salt, or derivative thereof between about 25 and about 250 nmol/L.

26. The method of claim 20 wherein said 25-hydroxyvitamin D, or an analog, salt, or derivative thereof is administered as a composition comprising said 25-hydroxyvitamin D, or an analog, salt, or derivative thereof and a pharmaceutically acceptable carrier.
27. A method for inhibiting cancer cells, while reducing the risk of UV radiation exposure or vitamin D toxicity, said method comprising the step of administering to a patient a composition comprising an effective amount of 25-hydroxyvitamin D, or an analog, salt, or derivative thereof to increase levels of a metabolite of said 25-dihydroxyvitamin D or its analog, salt or derivative in said cancer cells in a target organ wherein the cancer cells have a hydroxylase enzyme for synthesizing 1,25-dihydroxyvitamin D from said 25-hydroxyvitamin D wherein said cancer cells are selected from the group consisting of prostate cancer cells, breast cancer cells, skin cancer cells, colon cancer cells, lung cancer cells, leukemia cells, and lymphoma cells..
- 28 The method of claim 27 wherein said composition comprises 25-hydroxyvitamin D.
29. The method of claim 27 wherein said hydroxylase enzyme is 25-hydroxyvitamin D-1-alpha-hydroxylase.
30. The method of claim 27 wherein said cancer cells are selected from the group consisting of prostate cancer cells, breast cancer cells, colon cancer cells, and lymphoma cells.
31. The method of claim 27 wherein said cancer cells are prostatic cancer cells.
32. The method of claim 27 wherein the effective amount of said metabolic precursor is an amount which results in intra-target organ cell levels of said 25-hydroxyvitamin D between about 25 and about 250 nmol/L.

33. The method of claim 27 wherein said metabolic precursor is administered as a composition comprising said precursor or a salt, isomer, or derivative thereof, and a pharmaceutically acceptable carrier.

34. A method for treating benign prostatic hyperplasia in an animal, while reducing the risk of UV radiation exposure or vitamin D toxicity, said method comprising the step of administering to the animal a composition comprising an effective amount of 25-hydroxyvitamin D, or an analog, salt, or derivative thereof to increase levels of a metabolite of said 25-dihydroxyvitamin D or its analog, salt or derivative in said cancer cells in a target organ wherein the cancer cells have a hydroxylase enzyme for synthesizing 1,25-dihydroxyvitamin D from said 25-hydroxyvitamin D.

35. The method of claim 34 wherein said composition comprises 25-hydroxyvitamin D.

36. The method of claim 34 wherein said hydroxylase enzyme is 25-hydroxyvitamin D-1-alpha-hydroxylase.

37. The method of claim 34 wherein the effective amount of said 25-hydroxyvitamin D, or analog, salt or derivative thereof is an amount which results in levels of said 25-hydroxyvitamin D or analog, salt or derivative thereof in prostate cells of between about 25 and about 250 nmol/L.

38. The method of claim 34 wherein said 25-hydroxyvitamin D or analog, salt or derivative thereof is administered as a composition comprising said 25-hydroxyvitamin D or analog, salt or derivative thereof and a pharmaceutically acceptable carrier.--